AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for preparing particulate silica, comprising the step of feeding a gas mixture of at least one organohalosilane gas of the formula: $R_{4-n}SiX_n$ wherein R is hydrogen, methyl, ethyl or phenyl, X is a halogen atom, n is an integer of 1 to 3, with the proviso that n=3 when R is phenyl, a flammable gas capable of generating water vapor when burned, and a free oxygen-containing gas to a reaction chamber through a burner, whereby the organohalosilane is subjected to flame hydrolysis according to the scheme (I):

$$R_{4-n}SiX_n + (n/2)H_2O \rightarrow R_{4-n}SiO_{n/2} + nHX$$
 (I)

wherein R, X and n are as defined above, and then to oxidation reaction according to the scheme (II):

$$C_iH_jSiO_{n/2} + \{(2i+j/2)/2 + (2-n/2)/2\}O_2$$

 $\rightarrow iCO_2 + (j/2)H_2O + SiO_2$ (II)

wherein C_iH_j is a general form of R_{4-n} so that i varies in the range of 0 to 6 and j varies in the range of 1 to 15 as R is hydrogen, methyl, ethyl or phenyl, n is as defined above, with the proviso

that n=3 when R is phenyl, thereby forming particulate silica having a specific surface area of 205 to 400 m²/g and a logarithmic standard deviation of primary particle diameter of up to 0.45, wherein

the amount of said flammable gas fed is 1/2 to 3 mol per mol of said organohalosilane and such that the amount of water vapor resulting from combustion of said flammable gas is 1 to $\frac{6-\text{times}}{2}$ times the stoichiometric amount in scheme (I),

said burner has a plurality of concentric tubes including a center tube, having an outlet open to the reaction chamber,

said gas mixture is fed to the center tube of said burner such that it may have a linear velocity at the outlet of the center tube of 50 to 120 m/sec, calculated in the standard state, and

said flammable gas or said free oxygen-containing gas is fed to each outer tube arranged concentrically around the center tube of the burner.

2. (Original) The method of claim 1 wherein the amount calculated as oxygen of said free oxygen-containing gas fed is 1.0 to 2.0 times the sum of the oxygen equivalent necessary to synthesize SiO_2 from $C_iH_jSiO_{n/2}$ in scheme (II) and the oxygen

equivalent necessary for theoretical combustion of said flammable gas.

- 3. (Original) The method of claim 1 wherein said organohalosilane is methyltrichlorosilane which is a by-product in the synthesis of dimethyldichlorosilane from metallic silicon and methyl chloride.
- 4. (Original) The method of claim 1 wherein said flammable gas is hydrogen.
- 5. (Original) The method of claim 1 wherein said free oxygencontaining gas is air.
- 6. (Original) The method of claim 1 wherein said burner is a quadruple-tube burner having center, second, third and fourth tubes arranged concentrically from inside to outside,
- a mixture of the organohalosilane gas, the flammable gas and the free oxygen-containing gas is fed to the center tube,

the free oxygen-containing gas is fed to the second tube, the flammable gas is fed to the third tube, and the free oxygen-containing gas is fed to the fourth tube.

7. (Original) The method of claim 1 wherein said burner is a triple-tube burner having center, second and third tubes arranged concentrically from inside to outside,

a mixture of the organohalosilane gas, the flammable gas and the free oxygen-containing gas is fed to the center tube,

the free oxygen-containing gas is fed to the second tube, and the flammable gas is fed to the third tube.

8. (Original) The method of claim 1 wherein said burner is a double-tube burner having a center tube and a second tube surrounding the center tube,

a mixture of the organohalosilane gas, the flammable gas and the free oxygen-containing gas is fed to the center tube, and the free oxygen-containing gas is fed to the second tube.

9. (Original) The method of claim 6 wherein the gas linear velocity at the outlet of the second tube is 10 to 80% of the gas linear velocity at the outlet of the center tube.

10. (Cancelled)

- 11. (Previously Presented) Particulate silica produced by the method of claim 1 and having a specific surface area of 215 to $400~\text{m}^2/\text{g}$ and a logarithmic standard deviation of primary particle diameter of up to 0.5.
- 12. (Previously Presented) Particulate silica produced by the method of claim 1 and having a specific surface area of 305 to $400~\text{m}^2/\text{g}$ and a logarithmic standard deviation of primary particle diameter of up to 0.5.